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IBM 5294 Control Unit
Maintenance Analysis Procedures

This technical newsletter provides replacement pages for the subject publication. Pages to be inserted and/or removed are:

0700-1, 0700-2
0700-3, 0700-4

Changes to text and illustrations are indicated by a vertical line to the left of the change.

Summary of Amendments

This technical newsletter provides additions related to the IBM 5294 Models K01 and S01.

Note: *Please file this cover letter at the back of the manual to provide a record of changes.*

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5294

ROS PROBLEM ISOLATION MAP 0700

ENTRY POINTS

FROM	ENTER THIS MAP		
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0100	A	1	001
0200	A	1	001

001

(Entry Point A)

Is there a card in socket C5, C7, D5, or D7?
Y N

002
Replace the planar (MIM 0440) and reenter the configuration (MIM 0460).

Replace all the cards and planar ROS disable jumpers removed in earlier steps. Go to verify MAP 0400-1 Entry A.

003

- Record the display error code.

Up to 4 cards may be present in sockets C5, C7, D5, and D7. These can include an old style Feature ROS card, one or more Addressable Feature ROS cards, EPROM RPQ, translate, or patch cards.

Refer to MIM 0760 to identify the card types installed. Refer to MIM 0750 to determine if any planar ROS disable jumpers are needed when the module/card is installed.
Ensure that the module is installed correctly. (Refer to MIM 0760.)

Is there an old style feature ROS card in socket C5, C7, D5, or D7 (MIM 0760)?
Y N

004

(Entry Point B)

Is there an Addressable Feature ROS card in socket C5, C7, D5, or D7 (MIM 0760)?
Y N

3 2
A B C

C

005
(Entry Point C)

Is there a Feature Translate EPROM card in socket C5, C7, D5, or D7 (MIM 0760)?
Y N

006

Is there an EPROM patch card in socket C5, C7, D5, or D7 (MIM 0760)?

Note: Answer no if EPROM card is for Extended Function A for Models K01 or S01, or for Model S01 Translate (refer to MIM 0760).
Y N

007
(Entry Point D)

- Refer to the RPQ, Extended Function A for Models K01 or S01, or S01 Translate, documentation to see if any planar ROS disable jumpers were installed as part of the RPQ installation.
- Turn power off.
- Remove the card(s).
- Remove any planar ROS disable jumpers installed by RPQ, S01 Translate, or Extended Function A for Models K01 or S01 (MIM 410).
- Turn power on and wait 10 seconds for power-on diagnostics to complete.

Is an error code displayed?
Y N

008

Replace the RPQ, Extended Function A for Models K01 or S01, or S01 Translate card.

Replace all the cards and planar ROS disable jumpers removed in earlier steps. Go to verify MAP 0400-1 Entry A.

009

Replace the planar (MIM 0440).

Replace all the cards and planar ROS disable jumpers removed in earlier steps.

Reenter the configuration (MIM 0460). Go to verify MAP 0400-1 Entry A.

010
- Turn power off.
- Remove the patch card.
- Remove the planar ROS disable jumpers installed with the patch card (MIM 0410).
- Turn power on and wait 10 seconds for power-on diagnostics to complete.

2
A

A
1

Is an error code displayed?
Y N

011
Replace the planar (MIM 0440) with the latest level planar.
Remove and return both the old planar and the patch card.

Replace all the cards and planar ROS disable jumpers removed in earlier steps.

Reenter the configuration (MIM 0460).
Go to verify MAP 0400-1 Entry A.

012
Are there any cards remaining in sockets C5, C7, D5, or D7?
Y N

013
- Reinstall all removed cards and planar ROS disable jumpers.

Replace the planar (MIM 0440).

Replace all the cards and planar ROS disable jumpers removed in earlier steps.

Reenter the configuration (MIM 0460).
Go to verify MAP 0400-1 Entry A.

014

Go to Page 1, Step 007, Entry Point D.

015
- Power off.
- Remove the Translate Feature EPROM card.
- Remove the planar ROS disable jumper at B, if installed (MIM 0410).
- Power on and wait 10 seconds for power-on diagnostics to complete.

Is an error code displayed?
Y N

016
- Reinstall the planar ROS disable jumper, if removed.

Replace the Feature Translate EPROM card (MIM 0740).

Replace all the cards and planar ROS disable jumpers removed in earlier steps.

C

B C
1

017
Are there any cards remaining in sockets C5, C7, D5, or D7?
Y N

018
- Reinstall all removed cards and planar ROS disable jumpers.

Replace the planar (MIM 0440).

Replace all the cards and planar ROS disable jumpers removed in earlier steps.

Reenter the configuration (MIM 0460).
Go to verify MAP 0400-1 Entry A.

019

Go to Page 1, Step 005, Entry Point C.

020

Are there other cards installed or remaining in sockets C5, C7, D5, or D7?
Y N

021
(Entry Point E)

Either the Feature ROS card or a ROS module is failing.
Refer to the error code list in MIM section 2180. If the error code indicates a specific ROS module, check corresponding switch (MIM 0750) if Addressable Feature Card (MIM 0760). If switch setting is correct, then replace the ROS module first (MIM 0741).

If the error code does not indicate a specific ROS module, obtain an Addressable Feature ROS card and transfer all ROS modules to the new card (MIM 0741)

If a failure still occurs, remove the modules one at a time and power on after each removal. The failing module is the one removed just before the 5294 power-on sequence was OK (MIM 0741).

Replace all the cards and planar ROS disable jumpers removed in earlier steps.
Go to verify MAP 0400-1 Entry A.

3
B

A B
1 2

022

- Turn power off.
- Remove the Addressable Feature ROS card. If more than one is installed, remove either one.
- Remove any planar ROS disable jumpers used with the ROS modules on the card (MIM 0750).
- Turn power on and wait 10 seconds for power-on diagnostics to complete.

Is an error code displayed?

Y N

023

Go to Page 2, Step 021, Entry Point E.

024

Is there a second new style Feature ROS card installed?

Y N

025

- Leave the card out.

Go to Page 1, Step 005, Entry Point C.

026

- Leave the card out.

Go to Page 1, Step 004, Entry Point B.

027

Are there other cards installed in sockets C5, C7, D5, or D7?

Y N

(Entry Point F)

028

Are there two or more modules on the old style Feature ROS card (MIM 0710)?

Y N

029

Either the Feature ROS card or the ROS module is failing. See the following table and replace the most probable FRU first. The ROS module will either be replaced or transferred to the new Feature ROS card (MIM 0740 and 0741).

4
A C

C

D2 XXXX XXXX=	PROBABLE FRU (see note)
0008	Module #4 Feature ROS card
0010 0020 0030	Module #3 Feature ROS card
0040 0080 00C0	Module #2 Feature ROS card
0100	Module #1 Feature ROS card
Any not listed above	Feature ROS card Module #1, 2, 3, or 4

NOTE: If a D2XXXX error is displayed indicating a module that is not installed, check to see if a patch card is installed.

Replace all the cards and planar ROS disable jumpers removed in earlier steps.
Note: When replacing card P/N2451982 with the Addressable Feature Card, refer to MIM 0750 for switch settings.
Go to verify MAP 0400-1 Entry A.

030

- Look for the displayed error code in the following list.

D20008	D20030	D200C0
D20010	D20040	D20100
D20020	D20080	

Did you find the error code in the list?

Y N

031

The most probable cause is the old style Feature ROS card.
Obtain an Addressable Feature ROS card and transfer the modules to the new card. (Refer to MIM 0750 for switch settings).

If a failure still occurs, remove the modules one at a time and turn power on after each removal. The failing module is the one removed just before the 5294 power-on sequence was OK (MIM 0740).

4 4
A B

032

See the table and replace the module indicated (MIM 0741).

D2 XXXX XXXX=	PROBABLE FRU (see note)
0008	Module #4
0010 0020 0030	Module #3
0040 0080 00C0	Module #2
0100	Module #1
NOTE: If a D2XXXX error is displayed indicating a module that is not installed, check to see if a patch card is installed.	

If the failure still occurs:
- Obtain a new Feature ROS card.
- Remove the modules from the old card and install the modules on the new card (MIM 0741).
- Install the new Feature ROS card (MIM 0740).

Replace all the cards and planar ROS disable jumpers removed in earlier steps.
Go to verify MAP 0400-1 Entry A.

033
- Turn power off.
- Remove the old style Feature ROS card.
- Turn power on and wait 10 seconds for power-on diagnostics to complete.

Is an error code displayed?

Y N

034

Go to Page 3, Step 028, Entry Point F.

C

035

- Leave the card out.

Go to Page 1, Step 004, Entry Point B.

Replace all the cards and planar ROS disable jumpers removed in earlier steps.
Go to verify MAP 0400-1 Entry A.

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